

Surveyors Package

DHEC-OCRM

Waites Island

April 15, 2000

Introduction

The 1990 Beachfront Management Act defines the method by which beachfront jurisdiction is established by the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management (OCRM). The Beachfront Management Act requires that all shorelines be classified as inlet zones or standard zones. Inlet zones are further subdivided into stabilized inlet zones or unstabilized inlet zones.

In unstabilized inlet zones, the baseline is located at the most landward position of the shoreline in the past 40 years, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position. In standard zones and stabilized inlet zones, the baseline is located at the crest of the primary oceanfront sand dune. If there is no primary dune, the baseline is established based on the volume of sand on the active beach profile at each survey monument.

The position of the setback line is determined by the local long-term erosion rate. In erosional areas, the setback line is located landward of the baseline a distance equal to 40 times the annual erosion rate. In stable or accretional areas, the setback line is located 20 feet landward of the baseline.

All original baselines and setback lines became final on July 3rd, 1991. The Beachfront Management Act calls for all lines to be revised between July 1998 and July 2000, and then once every eight to 10 years after each preceding revision. Once a line is adopted as final, it will not change unless OCRM moves it as the result of a successful legal appeal of the line position or following a successful beach renourishment project. The date on which the new lines for this particular area were adopted as final is listed on the front cover.

Section 48-39-330 of the Beachfront Management Act reads as follows:

Thirty days after the initial adoption by the Department of setback lines, a contract of sale or transfer of real property located in whole or in part seaward of the setback line or the jurisdictional line must contain a disclosure statement that the property is or may be affected by the setback line, baseline, and the seaward corners of all habitable structures referenced to the South Carolina State Plane Coordinate System (N.A.D.-1983) and include the local erosion rate most recently made available by the Department for that particular standard zone or inlet zone as applicable. Language reasonably calculated to call attention to the existence of baselines, setback lines, jurisdictional lines, and the seaward corners of all habitable structures and the erosion rate complies with this section. The provisions of this section are regulatory in nature and do not affect the legality of an instrument violating the provisions.

As a result, surveyors have been called upon to transfer the OCRM baseline and setback lines to individual plats and to locate these lines in the field. OCRM has undertaken several steps to facilitate this task, as described below.

Orthophotographs

Orthophotographs, which are aerial photographs with the distortion removed at ground level, have been produced for all developed beaches in the state. These maps are to national map accuracy standards, and are depicted in the South Carolina State Plane Coordinate System (NAD 83). The maps are based on July 1993 photography, are at a scale of 1"=100', and have the beach lines drawn on them. Copies of these maps are available for review in the appropriate OCRM office and municipal or county office. Copies are available for sale at Duncan-Parnell, Inc., 3150 W. Montague Ave., North Charleston, SC, 29419, phone 843-747-6033.

Digitized Lines

OCRM has digitized the location of the baseline and setback line for all islands where such lines have been established. These digital line coordinates are listed as northings and eastings in the South Carolina State Plane Coordinate System (NAD 83), in units of international feet. They are provided in order to avoid having different surveyors obtain slightly different results when digitizing or scaling off the orthophotographs. Appendix 1 gives the line coordinates for this area.

Beach Survey Monuments

In 1987, OCRM installed a network of beach survey monuments along most of South Carolina's shoreline. Over time, additional monuments have been added to the network to replace ones that have been destroyed. In general, the replacement monument is along the same shore-perpendicular line as the original monument but farther landward. Replacement monuments are stamped with the letter "B" (or the letter "C" for a third-generation monument). For example, monument 4220 was replaced with 4220B. These monuments are located horizontally in the South Carolina State Plane Coordinate System (NAD 83), and are vertically referenced to 1929 NGVD. Description sheets for all monuments in this are given in Appendix 2. In some cases, the monument's coordinates are given in meters. To convert to international feet, divide by 0.3048.

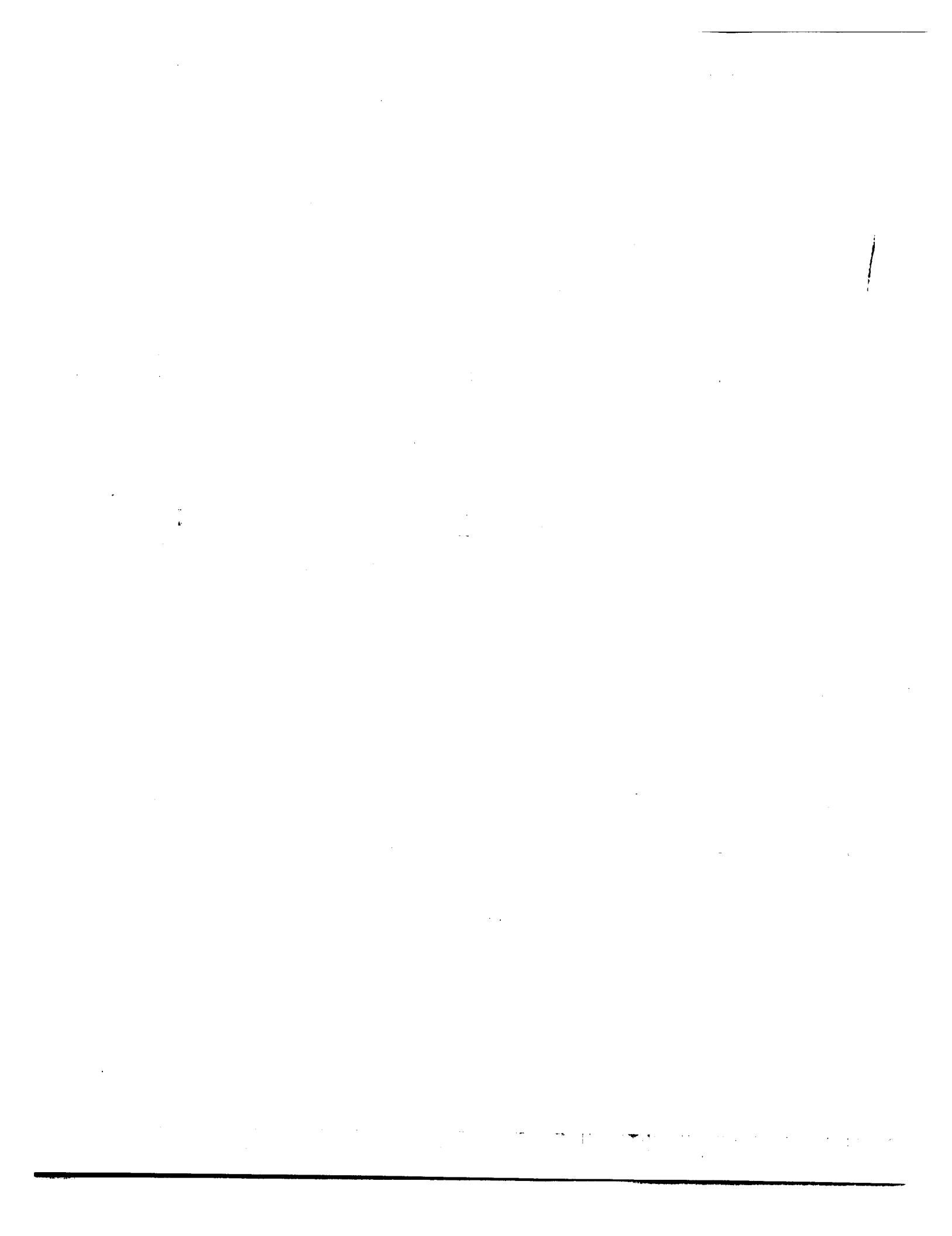
Local Erosion Rates

OCRM has conducted studies of the long-term erosion rates at all survey monument locations. These rates were used to establish the location of the setback line, and must also be given on individual plats. In erosional areas the exact rate was determined. In stable or accretional areas no specific number was determined, and the shoreline is officially classified as "stable to accretional" or S/A. Local erosion rates for the area covered by this report are given in Appendix 3.

Plat Review Requirements

In order to receive a permit from OCRM for many activities seaward of the setback line, the applicant must submit a plat in state plane coordinates with specific information shown on it. The following is a list of the required information:

1. Monuments used to reference the survey.
2. Line coordinates used to establish the baseline and setback line.
3. Coordinates of the property corners.
4. Coordinates of the corners of any habitable structures on the property.
5. Distance between the seaward structure corners and the baseline and setback line.
6. Footprint of all structures on the property.
7. Location of the crest and trough of the primary oceanfront sand dune.
8. Local erosion rate.



Appendix 1

Line Coordinates

This appendix contains a listing of OCRM baseline and setback line coordinates, given as northings and eastings in international feet referenced to the South Carolina State Plane Coordinate System (NAD 83). Coordinates are listed as one continuous line that begins at one end of the island or beach and extends to the other. There are separate listings for the baseline and the setback line.

WAITES ISLAND BASELINE

DHEC-OCRM BASELINE COORDINATES
WAITES ISLAND
VALID AS OF APRIL 15, 2000
STATE-PLANE COORDINATE SYSTEM, NAD 1983
INTERNATIONAL FEET

| NORTHING | EASTING |
|-----------|------------|
| 739779.64 | 2730014.38 |
| 739759.91 | 2730010.73 |
| 739746.03 | 2729997.58 |
| 739732.88 | 2729985.89 |
| 739724.84 | 2729974.20 |
| 739716.80 | 2729958.85 |
| 739706.58 | 2729954.47 |
| 739695.62 | 2729958.85 |
| 739680.27 | 2729972.74 |
| 739664.20 | 2729991.00 |
| 739645.20 | 2730001.23 |
| 739624.75 | 2730019.50 |
| 739605.75 | 2730033.38 |
| 739590.41 | 2730046.53 |
| 739575.79 | 2730059.68 |
| 739567.76 | 2730077.95 |
| 739562.64 | 2730093.29 |
| 739560.45 | 2730104.25 |
| 739552.41 | 2730135.67 |
| 739552.41 | 2730151.74 |
| 739552.41 | 2730173.66 |
| 739547.30 | 2730204.34 |
| 739543.65 | 2730229.19 |
| 739529.76 | 2730249.64 |
| 739516.61 | 2730281.79 |
| 739509.31 | 2730316.86 |
| 739505.65 | 2730348.28 |
| 739496.16 | 2730369.47 |
| 739489.58 | 2730406.00 |
| 739487.39 | 2730423.53 |
| 739488.12 | 2730433.76 |
| 739496.89 | 2730458.60 |
| 739510.77 | 2730479.79 |
| 739530.49 | 2730504.63 |
| 739547.30 | 2730529.47 |
| 739563.37 | 2730558.70 |
| 739582.37 | 2730583.54 |
| 739596.98 | 2730608.38 |
| 739621.82 | 2730651.49 |
| 739634.24 | 2730690.21 |
| 739647.40 | 2730727.47 |
| 739665.66 | 2730763.27 |
| 739679.54 | 2730799.80 |
| 739694.16 | 2730841.45 |
| 739707.31 | 2730883.83 |
| 739720.46 | 2730921.82 |
| 739729.96 | 2730968.58 |
| 739749.68 | 2731019.72 |
| 739778.18 | 2731074.52 |
| 739805.94 | 2731113.24 |

WAITES ISLAND BASELINE

| | |
|-----------|------------|
| 739826.40 | 2731151.24 |
| 739841.01 | 2731185.58 |
| 739861.47 | 2731240.37 |
| 739879.00 | 2731272.52 |
| 739898.73 | 2731325.86 |
| 739940.38 | 2731376.27 |
| 739958.64 | 2731412.80 |
| 739970.33 | 2731452.25 |
| 739981.29 | 2731483.67 |
| 739996.63 | 2731517.28 |
| 740005.40 | 2731546.50 |
| 740014.90 | 2731571.35 |
| 740022.21 | 2731596.19 |
| 740030.24 | 2731623.22 |
| 740039.74 | 2731650.25 |
| 740052.16 | 2731681.67 |
| 740076.27 | 2731717.47 |
| 740092.35 | 2731740.85 |
| 740109.15 | 2731778.84 |
| 740119.38 | 2731806.61 |
| 740128.88 | 2731839.49 |
| 740143.49 | 2731878.21 |
| 740155.18 | 2731901.59 |
| 740162.49 | 2731929.35 |
| 740179.29 | 2731959.31 |
| 740196.10 | 2731993.65 |
| 740220.94 | 2732033.83 |
| 740239.20 | 2732072.56 |
| 740271.35 | 2732108.36 |
| 740291.08 | 2732132.47 |
| 740299.84 | 2732175.57 |
| 740302.04 | 2732204.80 |
| 740299.11 | 2732234.02 |
| 740306.42 | 2732265.44 |
| 740309.34 | 2732285.90 |
| 740320.30 | 2732304.89 |
| 740325.42 | 2732326.08 |
| 740331.99 | 2732355.31 |
| 740348.07 | 2732382.34 |
| 740364.87 | 2732412.30 |
| 740385.33 | 2732462.71 |
| 740426.97 | 2732558.42 |
| 740452.55 | 2732605.18 |
| 740473.00 | 2732643.90 |
| 740488.35 | 2732682.63 |
| 740500.04 | 2732726.47 |
| 740513.19 | 2732786.38 |
| 740541.68 | 2732838.25 |
| 740560.68 | 2732874.78 |
| 740568.71 | 2732906.20 |
| 740577.48 | 2732941.27 |
| 740595.77 | 2732975.90 |
| 740609.18 | 2733023.78 |
| 740618.76 | 2733067.84 |
| 740627.16 | 2733100.55 |
| 740632.16 | 2733155.94 |
| 740630.25 | 2733207.65 |

WAITES ISLAND BASELINE

| | |
|-----------|------------|
| 740646.06 | 2733255.30 |
| 740683.88 | 2733318.74 |
| 740691.54 | 2733349.38 |
| 740703.03 | 2733389.60 |
| 740708.77 | 2733429.83 |
| 740724.10 | 2733475.79 |
| 740743.25 | 2733519.84 |
| 740770.06 | 2733592.62 |
| 740787.30 | 2733671.15 |
| 740810.55 | 2733726.69 |
| 740833.93 | 2733805.60 |
| 740855.12 | 2733875.74 |
| 740877.04 | 2733925.42 |
| 740903.34 | 2733986.07 |
| 740921.61 | 2734044.52 |
| 740955.95 | 2734110.27 |
| 740967.64 | 2734144.61 |
| 740976.40 | 2734197.22 |
| 740993.21 | 2734238.86 |
| 741009.28 | 2734281.97 |
| 741026.09 | 2734344.07 |
| 741039.24 | 2734397.41 |
| 741069.19 | 2734503.35 |
| 741080.88 | 2734574.22 |
| 741094.77 | 2734594.68 |
| 741108.65 | 2734633.40 |
| 741131.30 | 2734670.66 |
| 741144.45 | 2734707.19 |
| 741157.60 | 2734764.18 |
| 741186.09 | 2734835.78 |
| 741186.09 | 2734880.35 |
| 741190.48 | 2734905.92 |
| 741190.48 | 2734951.22 |
| 741206.55 | 2735004.56 |
| 741227.01 | 2735076.89 |
| 741254.04 | 2735125.84 |
| 741272.31 | 2735167.49 |
| 741282.54 | 2735203.29 |
| 741305.19 | 2735255.16 |
| 741311.03 | 2735302.65 |
| 741308.11 | 2735372.06 |
| 741327.84 | 2735439.28 |
| 741338.06 | 2735484.58 |
| 741347.56 | 2735553.99 |
| 741366.56 | 2735619.01 |
| 741389.94 | 2735680.39 |
| 741399.44 | 2735719.11 |
| 741408.93 | 2735778.29 |
| 741419.16 | 2735818.48 |
| 741425.01 | 2735920.76 |
| 741437.43 | 2735986.52 |
| 741457.89 | 2736025.24 |
| 741463.73 | 2736063.97 |
| 741473.23 | 2736104.88 |
| 741479.07 | 2736147.99 |
| 741496.61 | 2736195.48 |
| 741517.07 | 2736264.89 |

WAITES ISLAND BASELINE

| | |
|-----------|------------|
| 741558.30 | 2736354.91 |
| 741557.35 | 2736389.68 |
| 741557.98 | 2736408.82 |
| 741556.52 | 2736430.74 |
| 741555.06 | 2736497.23 |
| 741560.90 | 2736538.14 |
| 741568.21 | 2736572.48 |
| 741566.02 | 2736606.82 |
| 741570.40 | 2736631.66 |
| 741570.40 | 2736667.46 |
| 741585.75 | 2736695.96 |
| 741590.13 | 2736725.91 |
| 741594.51 | 2736757.33 |
| 741606.20 | 2736802.63 |
| 741615.70 | 2736828.93 |
| 741617.16 | 2736850.12 |
| 741619.36 | 2736872.77 |
| 741628.12 | 2736898.34 |
| 741633.97 | 2736921.72 |
| 741641.27 | 2736943.64 |
| 741652.23 | 2736999.17 |
| 741655.89 | 2737044.47 |
| 741664.65 | 2737085.38 |
| 741674.88 | 2737118.26 |
| 741685.11 | 2737147.48 |
| 741686.57 | 2737167.94 |
| 741691.69 | 2737205.20 |
| 741705.57 | 2737249.77 |
| 741714.03 | 2737307.63 |
| 741719.29 | 2737346.58 |
| 741722.45 | 2737392.89 |
| 741731.93 | 2737450.78 |
| 741738.24 | 2737472.89 |
| 741749.82 | 2737502.36 |
| 741763.50 | 2737541.31 |
| 741830.87 | 2737603.41 |
| 741855.08 | 2737628.67 |
| 741898.24 | 2737686.56 |
| 741959.29 | 2737725.51 |
| 741990.33 | 2737790.80 |
| 742004.83 | 2737830.27 |
| 742015.30 | 2737873.77 |
| 742023.36 | 2737918.88 |
| 742035.44 | 2737961.58 |
| 742049.14 | 2737997.02 |
| 742065.25 | 2738046.16 |
| 742082.16 | 2738084.82 |
| 742102.30 | 2738149.27 |
| 742126.47 | 2738212.10 |
| 742139.36 | 2738258.01 |
| 742160.30 | 2738305.54 |
| 742182.05 | 2738345.01 |
| 742189.30 | 2738377.23 |
| 742205.41 | 2738412.68 |
| 742232.80 | 2738439.26 |
| 742260.99 | 2738474.71 |
| 742290.80 | 2738508.54 |

WAITES ISLAND BASELINE

| | |
|-----------|------------|
| 742309.33 | 2738524.65 |
| 742331.08 | 2738573.79 |
| 742350.41 | 2738609.23 |
| 742376.99 | 2738655.15 |
| 742403.58 | 2738671.26 |
| 742420.49 | 2738688.17 |
| 742432.57 | 2738722.01 |
| 742436.60 | 2738757.45 |
| 742452.71 | 2738784.84 |
| 742476.07 | 2738804.17 |
| 742498.63 | 2738827.53 |
| 742519.57 | 2738857.34 |
| 742539.71 | 2738900.03 |
| 742556.63 | 2738923.39 |
| 742588.04 | 2738977.36 |
| 742621.88 | 2739012.81 |
| 742672.63 | 2739086.11 |
| 742715.32 | 2739144.91 |
| 742774.12 | 2739200.50 |
| 742827.29 | 2739234.33 |
| 742863.54 | 2739248.02 |
| 742898.98 | 2739248.02 |
| 742936.04 | 2739235.94 |
| 742962.62 | 2739218.22 |
| 742995.65 | 2739204.52 |
| 743016.96 | 2739198.21 |
| 743035.83 | 2739187.73 |
| 743051.56 | 2739178.82 |

END

WAITES ISLAND SETBACK LINE

DHEC-OCRM SETBACK LINE COORDINATES
WAITES ISLAND
VALID AS OF APRIL 15, 2000
STATE-PLANE COORDINATE SYSTEM, NAD 1983
INTERNATIONAL FEET

| NORTHING | EASTING |
|-----------|------------|
| 739956.56 | 2730265.66 |
| 739877.39 | 2730326.75 |
| 739830.49 | 2730362.94 |
| 739800.00 | 2730458.18 |
| 739769.51 | 2730553.42 |
| 739754.64 | 2730599.87 |
| 739793.42 | 2730692.04 |
| 739832.20 | 2730784.22 |
| 739870.98 | 2730876.39 |
| 739909.76 | 2730968.57 |
| 739948.54 | 2731060.74 |
| 739987.32 | 2731152.92 |
| 740026.10 | 2731245.09 |
| 740064.88 | 2731337.27 |
| 740083.99 | 2731382.69 |
| 740126.29 | 2731473.30 |
| 740168.60 | 2731563.91 |
| 740210.90 | 2731654.53 |
| 740253.20 | 2731745.14 |
| 740295.50 | 2731835.75 |
| 740337.81 | 2731926.36 |
| 740380.11 | 2732016.97 |
| 740422.41 | 2732107.58 |
| 740464.71 | 2732198.20 |
| 740507.02 | 2732288.81 |
| 740549.32 | 2732379.42 |
| 740591.62 | 2732470.03 |
| 740633.92 | 2732560.64 |
| 740676.23 | 2732651.25 |
| 740718.53 | 2732741.87 |
| 740760.83 | 2732832.48 |
| 740803.14 | 2732923.09 |
| 740845.44 | 2733013.70 |
| 740887.74 | 2733104.31 |
| 740907.59 | 2733146.83 |
| 740942.82 | 2733240.42 |
| 740978.06 | 2733334.01 |
| 741013.29 | 2733427.59 |
| 741048.52 | 2733521.18 |
| 741083.75 | 2733614.77 |
| 741118.99 | 2733708.36 |
| 741154.22 | 2733801.94 |
| 741189.45 | 2733895.53 |
| 741224.69 | 2733989.12 |
| 741259.92 | 2734082.71 |
| 741295.15 | 2734176.29 |
| 741330.39 | 2734269.88 |
| 741365.62 | 2734363.47 |
| 741400.85 | 2734457.06 |
| 741436.08 | 2734550.64 |

WAITES ISLAND SETBACK LINE

| | |
|-----------|------------|
| 741471.32 | 2734644.23 |
| 741506.55 | 2734737.82 |
| 741541.78 | 2734831.41 |
| 741577.02 | 2734924.99 |
| 741612.25 | 2735018.58 |
| 741638.68 | 2735088.79 |
| 741658.83 | 2735186.74 |
| 741678.98 | 2735284.69 |
| 741699.13 | 2735382.64 |
| 741719.29 | 2735480.58 |
| 741739.44 | 2735578.53 |
| 741759.59 | 2735676.48 |
| 741779.74 | 2735774.43 |
| 741799.89 | 2735872.38 |
| 741820.04 | 2735970.33 |
| 741840.19 | 2736068.28 |
| 741860.35 | 2736166.22 |
| 741880.50 | 2736264.17 |
| 741900.65 | 2736362.12 |
| 741920.80 | 2736460.07 |
| 741940.95 | 2736558.02 |
| 741961.10 | 2736655.97 |
| 741981.25 | 2736753.92 |
| 742001.41 | 2736851.86 |
| 742021.56 | 2736949.81 |
| 742041.71 | 2737047.76 |
| 742054.85 | 2737111.64 |
| 742084.29 | 2737207.21 |
| 742113.73 | 2737302.78 |
| 742143.17 | 2737398.35 |
| 742172.61 | 2737493.91 |
| 742202.05 | 2737589.48 |
| 742231.48 | 2737685.05 |
| 742260.92 | 2737780.62 |
| 742290.36 | 2737876.19 |
| 742319.80 | 2737971.76 |
| 742349.24 | 2738067.33 |
| 742378.68 | 2738162.89 |
| 742408.12 | 2738258.46 |
| 742437.56 | 2738354.03 |
| 742467.00 | 2738449.60 |
| 742496.44 | 2738545.17 |
| 742525.88 | 2738640.74 |
| 742555.31 | 2738736.30 |
| 742584.75 | 2738831.87 |
| 742614.19 | 2738927.44 |
| 742635.78 | 2738997.52 |
| 742698.08 | 2739086.46 |
| 742731.14 | 2739131.77 |
| 742789.60 | 2739186.35 |
| 742834.76 | 2739215.44 |
| 742867.72 | 2739228.18 |
| 742895.95 | 2739227.90 |
| 742928.10 | 2739217.65 |
| 742954.16 | 2739199.92 |
| 742993.19 | 2739183.88 |
| 743010.12 | 2739179.16 |

WAITES ISLAND SETBACK LINE

743044.46 2739160.32
END

Appendix 2

Monument Descriptions

This appendix contains descriptions of all OCRM beach survey monuments in the area.

DATE : JULY 1991

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5900 B 1990
STATE : SOUTH CAROLINA COUNTY : Horry
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1° 19' 55".4 SCALE FACTOR : 0.9997982
NORTHING : 739,277.60 FEET LAT : 33° 50' 31" 02048
EASTING : 2,729,385.62 FEET LONG : 78° 35' 50" 33978
ELEVATION (NGVD 29) FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|-----------------|---------------|
| 5895 | 251° 10' 18" 99 | S 69° 50' 24" W | 2365.04 FEET |
| 5905 B | 071° 56' 31" 96 | N 70° 36' 37" E | 2161.50 FEET |

DESCRIPTION :

LOCATED ON WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90. GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 TO A FORK. CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD, PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN RIGHT & GO 0.65 MI AROUND SOUTHWEST POINT OF WAITES ISLAND & THE STATION ON THE RIGHT BETWEEN 2 CLUMPS OF BUSHES.

SKETCH :

STATION
NOT
RECOVERED

DATE : JANUARY 1992

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

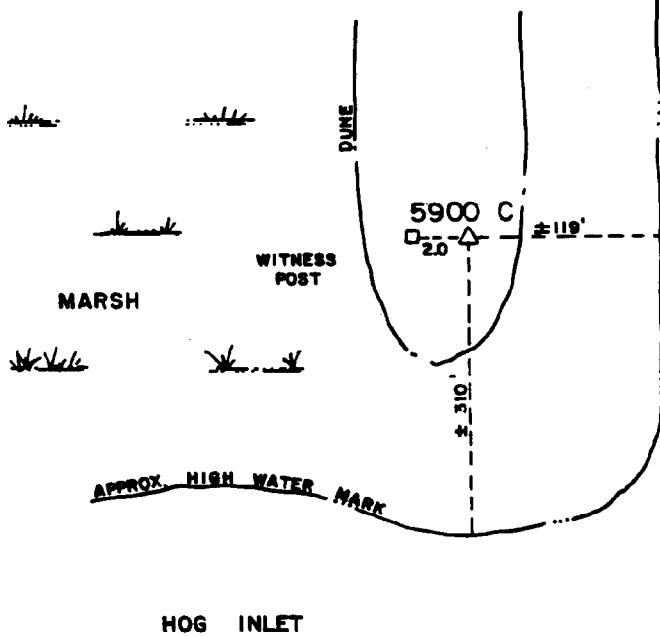
PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5900 C 1991
STATE : SOUTH CAROLINA COUNTY : Horry
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1° 19' 57.6" SCALE FACTOR : 0.9997982
NORTHING : 739, 294.51 FEET LAT : 33° 50' 31.10823
EASTING : 2, 729, 731.30 FEET LONG : 78° 35' 46.23716
ELEVATION (NGVD 29) 12.17 FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|-----------------|---------------|
| 5895 | 253° 22' 01.12" | S 72° 02' 04" W | 2697.42 FEET |
| 5905 B | 068° 51' 03.60" | N 67° 31' 06" E | 1832.41 FEET |

DESCRIPTION :

LOCATED ON WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90, GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 TO A FORK, CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF THE PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD, PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN RIGHT & GO 0.65 MI AROUND THE SOUTHWEST POINT OF WAITES ISLAND & THE STATION ON THE RIGHT BETWEEN 2 CLUMPS OF BUSHES. A STANDARD BRASS CAP SET ON TOP OF A 2-FT LONG 2-IN PVC PIPE INSIDE A 6-IN PVC PIPE SURROUNDED BY CONCRETE.

SKETCH :



DATE : JULY 1991

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

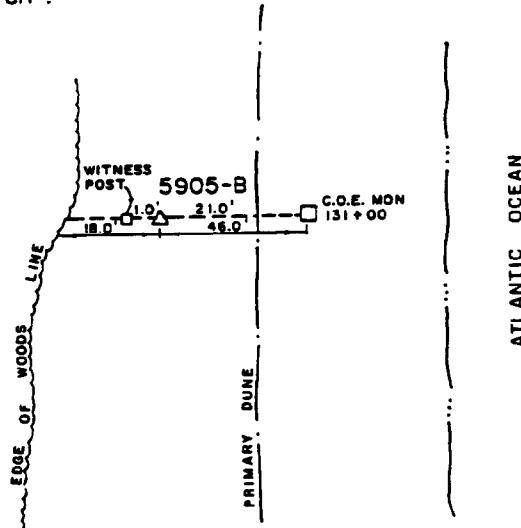
PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5905 B 1990
STATE : SOUTH CAROLINA COUNTY : HORRY
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1°20'08".9 SCALE FACTOR : 0.9997983
NORTHING : 739.995.06 FEET LAT : 33°50'37.64798
EASTING : 2.731.424.11 FEET LONG : 78°35'25.97605
ELEVATION (NGVD 29) 13.51 FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|--------------|---------------|
| 5900 B | 251°56'45.47 | S 70°36'37"W | 2161.50 FEET |
| 5915 B | 070°31'50.59 | N 69°11'42"E | 1938.46 FEET |

DESCRIPTION :

LOCATED IN WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90. GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 (SEA MOUNTAIN HWY.) TO A FORK. CONTINUE CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD. PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO ATLANTIC OCEAN. TURN RIGHT FOR 0.20 MI. TURN RIGHT FOR 0.05 MI TO A SAND DUNE & CORPS OF ENGINEER MARK 131+00 & THE MARK BEHIND THE DUNE.
A STANDARD BRASS CAP SET ON STAINLESS STEEL ROD ENCASED IN 4-IN PVC PIPE.

SKETCH :



DATE : JULY 1991

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

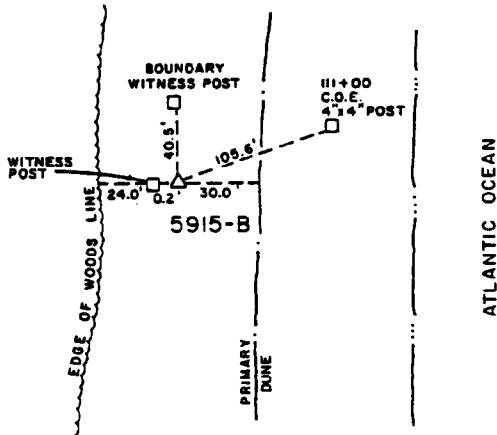
PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5915 B 1990
STATE : SOUTH CAROLINA COUNTY : HARRY
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1°20'20.9" SCALE FACTOR : 0.9997984
NORTHING : 740,683.44 FEET LAT : 33°50'44.03896
EASTING : 2,733,235.81 FEET LONG : 78°35'04.30803
ELEVATION (NGVD 29) 6.70 FEET

| OBJECT | GEODETTIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|-------------------|--------------|---------------|
| 5905 B | 250°32'02.61" | S 69°11'42"W | 1938.46 FEET |
| 5930 B | 073°19'46.22" | N 71°59'25"E | 2060.83 FEET |

DESCRIPTION :

LOCATED ON WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90, GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 (SEA MOUNTAIN HWY.) TO A FORK. CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT & GO NORTHEAST FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD. PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN LEFT & GO 0.15 MI TO THE MARK ON THE LEFT NEAR A 4X4 WOODEN CORPS OF ENGINEERS MONUMENT. A STANDARD BRASS CAP SET ON A STAINLESS STEEL ROD ENCASED IN 4-IN PVC PIPE.

SKETCH :



DATE : JULY 1991

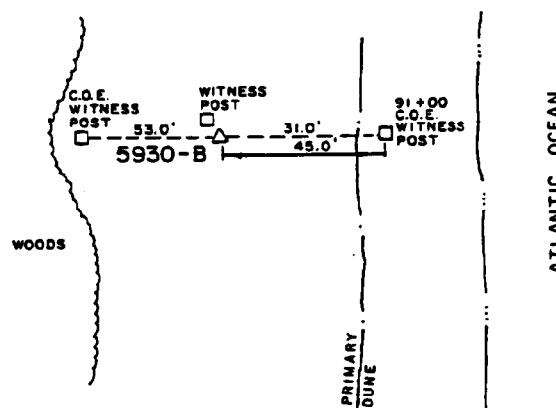
SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5930 B 1990
STATE : SOUTH CAROLINA COUNTY : MORRY
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1° 20' 33.9" SCALE FACTOR : 0.9997985
NORTHING : 741.320.47 FEET LAT : 33° 50' 49.88665
EASTING : 2.735.195.27 FEET LONG : 78° 34' 40.90162
ELEVATION (NGVD 29) 6.71 FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|----------------|---------------|
| 5915 B | 253° 19' 59.19 | S 71° 59' 25"W | 2060.83 FEET |
| 5945 | 076° 55' 40.07 | N 75° 35' 06"E | 2043.32 FEET |

DESCRIPTION :
LOCATED ON WAITES ISLAND. TO REACH FROM
THE JUNCTION OF S.C. HWY. 9 & S.C. HWY.
90. GO SOUTHEAST FOR 0.55 MI ON S.C. HWY.
9 (SEA MOUNTAIN HWY.) TO A FORK, CONTINUE
ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF
S-26-236 (LITTLE RIVER NECK ROAD) ON THE
LEFT. TURN LEFT & GO FOR 3.4 MI TO THE
END OF PAVEMENT AT TILGHMAN POINT.
CONTINUE AHEAD, PASSING THRU A WHITE
WOODEN GATE, ONTO A SAND ROAD ON PRIVATE
PROPERTY FOR 0.40 MI TO THE JUNCTION OF A
SAND ROAD. TURN RIGHT & GO 0.94 MI TO THE
ATLANTIC OCEAN. TURN LEFT & GO 0.50 MI
ALONG OCEAN TO CORPS OF ENGINEERS MARK
91+00 & THE MARK ON THE LEFT IN A
CLEARING.
A STANDARD BRASS CAP SET ON A STAINLESS
STEEL ROD ENCASED IN 4-IN PVC PIPE."

SKETCH :



DATE : JULY 1991

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

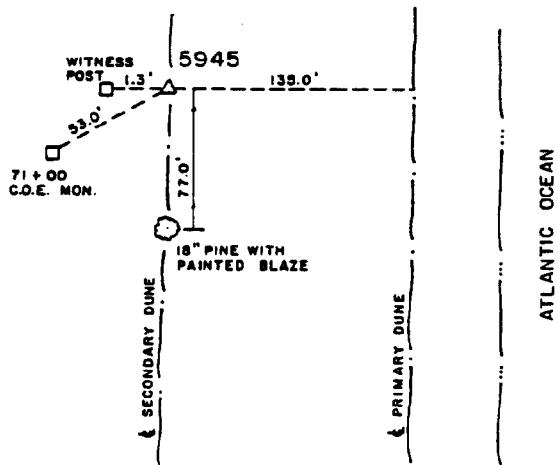
PROJECT : SCCC SURVEY MONUMENTATION STATION NO. :SCCC 5945 1987
STATE : SOUTH CAROLINA COUNTY : Horry
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1° 20' 46.9" SCALE FACTOR : 0.9997985
NORTHING : 741,829.04 FEET LAT : 33° 50' 54.45794
EASTING : 2,737,173.86 FEET LONG : 78° 34' 17.30329
ELEVATION (NGVD 29) 15.74 FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|-----------------|---------------|
| 5930 B | 256° 55' 53.15" | S 75° 35' 06" W | 2043.32 FEET |
| 5960 | 075° 44' 09.25" | N 74° 23' 22" E | 1954.91 FEET |

DESCRIPTION :

LOCATED ON WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90. GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 (SEA MOUNTAIN HWY.) TO A FORK. CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD. PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN LEFT & GO 0.89 MI. TURN LEFT & GO 0.05 MI TO A SAND DUNE JUST EAST OF A SMALL STAND OF PINE TREES & THE MARK ON TOP OF DUNE.
A STANDARD BRASS CAP SET ON TOP OF A PREFABRICATED ALUMINUM PIPE SET INTO CONCRETE & INSIDE A PVC PIPE.

SKETCH :



DATE : JULY 1991

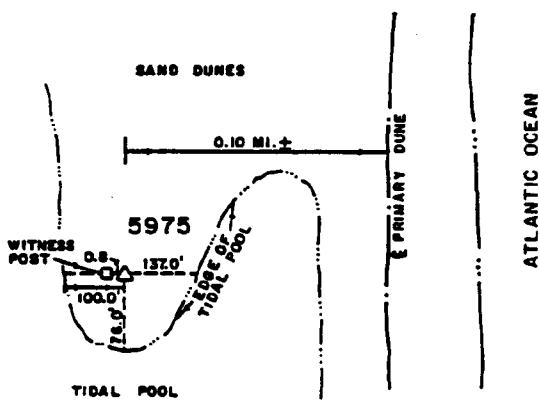
SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5975 1987
STATE : SOUTH CAROLINA COUNTY : Horry
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1°21'11".8 SCALE FACTOR : 0.9997986
NORTHING : 742,451.16 FEET LAT : 33°50'59"73532
EASTING : 2,740,934.53 FEET LONG : 78°33'32"54501
ELEVATION (NGVD 29) 10.13 FEET

| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|--------------|---------------|
| 5960 | 268°25'19".69 | S 87°04'08"W | 1881.09 FEET |
| 5995 | 101°55'19".12 | S 79°25'53"E | 1499.69 FEET |

DESCRIPTION : LOCATED ON WAITES ISLAND, TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90, GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 (SEA MOUNTAIN HWY.) TO A FORK. CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-26-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD, PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN LEFT & GO 1.64 MI. TURN LEFT & GO 0.10 MI TO THE MARK ON TOP OF A GRASSY DUNE.
A STANDARD BRASS CAP SET ON TOP OF A PREFABRICATED ALUMINUM PIPE SET INTO CONCRETE & INSIDE A PVC PIPE.

SKETCH :



DATE : JULY 1991

SOUTH CAROLINA COASTAL COUNCIL
CONTROL SURVEYS
WAITES ISLAND

PROJECT : SCCC SURVEY MONUMENTATION STATION NO. : SCCC 5995 1987
STATE : SOUTH CAROLINA COUNTY : HORRY
NAD 83 - SINGLE ZONE SPC - CONVERGANCE : 1°21'21".4 SCALE FACTOR : 0.9997986
NORTHING : 742.176.15 FEET LAT : 33°50'56".67020
EASTING : 2.742.408.46 FEET LONG : 078 33 15.14766
ELEVATION (NGVD 29) 16.86' FEET

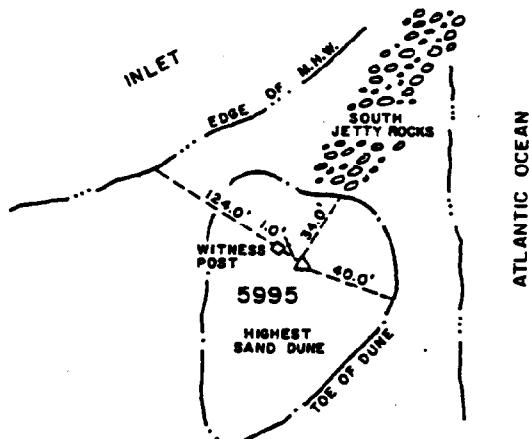
| OBJECT | GEODETIC AZIMUTH | GRID BEARING | GRID DISTANCE |
|--------|------------------|--------------|---------------|
| 5995 | 281°55'28".76 | N 79°25'53"W | 1499.69 FEET |

DESCRIPTION :

LOCATED ON WAITES ISLAND. TO REACH FROM THE JUNCTION OF S.C. HWY. 9 & S.C. HWY. 90, GO SOUTHEAST FOR 0.55 MI ON S.C. HWY. 9 (SEA MOUNTAIN HIGHWAY) TO A FORK. CONTINUE ON S.C. HWY. 9 FOR 0.05 MI TO JUNCTION OF S-2B-236 (LITTLE RIVER NECK ROAD) ON THE LEFT. TURN LEFT FOR 3.4 MI TO THE END OF PAVEMENT AT TILGHMAN POINT. CONTINUE AHEAD, PASSING THRU A WHITE WOODEN GATE, ONTO A SAND ROAD ON PRIVATE PROPERTY FOR 0.40 MI TO THE JUNCTION OF A SAND ROAD. TURN RIGHT FOR 0.94 MI TO THE ATLANTIC OCEAN. TURN LEFT & GO 1.94 MI. TURN LEFT & GO 0.05 MI TO THE MARK ON TOP OF THE HIGHEST SAND DUNE AT THE SOUTHEAST END OF WAITES ISLAND.

A STANDARD BRASS CAP SET ON TOP OF A PREFABRICATED ALUMINUM PIPE SET INTO CONCRETE & INSIDE A PVC PIPE.

SKETCH :



Appendix 3 **Long Term Shoreline Change Rates**

The long-term erosion rates for Waites Island, in units of feet per year, are listed below.
S/A means the shoreline is stable to accretional.

| Monument | Rate |
|----------|-------|
| 5900 | -10.0 |
| 5905 | -3.2 |
| 5915 | -7.0 |
| 5930 | -9.5 |
| 5945 | -9.4 |
| 5960 | S/A |

